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ABSTRACT

This article reviews the literature and provides examples of extrinsic motivators and incentives being used in public schools to decrease dropout rates, increase attendance, and increase academic achievement. The use of incentives has grown in favor as a way to increase student achievement, intrinsic motivation, self-worth, and retention. Certain characteristics must be present in incentives to ensure success in motivating students. These include establishing definite patterns of change in behavior, melding with students' interests, and having consistent standards of implementation. Students will respond favorably to rewards if they feel there is a reasonable chance of success, they are convinced that the personal risks are not overwhelming, and they believe that the product or reward is worth the effort needed to succeed. Educators do not universally support incentives in education. Many believe that the use of extrinsic motivators undermines individuals' intrinsic motivation. Evidence clearly shows that extrinsic rewards can either enhance or reduce interest in an activity, depending on how they are used. Despite continued controversy, incentive programs can serve a valuable function in schools, providing an additional source of motivation and support for students. (Contains 45 references.) (SM)

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As teachers look for new and interesting ways to keep their students' attention, they have increasingly resorted to the use of extrinsic motivators and incentives. Yet, the utilization of these methods are quite controversial. This article is designed to review the literature and provide examples of extrinsic motivators and incentives being used in public schools to decrease dropout rates, increase attendance and raise academic achievement scores.

# Extrinsic motivators and incentives: Challenge and controversy

As teachers look for new and interesting ways to keep their students' attention, they have increasingly resorted to the use of extrinsic motivators (Arnold, 1976; Brennan & Glover, 1980; Broeckner & Vasta, 1981; Gorman, 1994; Knell, 1999; Orlick & Mosher, 1978; Weinburg & Jackson, 1979)). This use of extrinsic incentives is particularly important in urban schools where negative factors emerge constantly in the learning environment (Baker & Sansone, 1990; Firestone, 1989; Hanson, 1994; Lee, 1990; Watkins, Wilson & Watkins, 1994).

Hodgkinson (1985) stated that, ". . . student motivation for learning is a major concern of most teachers, but especially for teachers of low-achieving or at-risk students. . ." (p. 27). Reports indicate that though the task of motivating at-risk students can be daunting due to the psychological, emotional and physical stressors which adversely affecting their lives, extrinsic rewards can be helpful in motivating them (Barrett & Boggiano, 1988; Beetler, 1984; Bishop, 1989; Mahoody, 1993; Punsalan, 1993).

Amabile, Hill, Hennessey and Tighe (1994) define extrinsic motivation as ". . . the motivation to work primarily in response to something apart from the work itself, such as rewards or recognition or the dictates of

other people" (p. 950). As stated earlier, educational theorists primarily concern themselves with the intrinsic motivation construct, perhaps rationalizing that internal motivation is what causes a person to behave and perform in a certain way (Calder & Staw, 1975; Gottfried, 1985; Husman& Lens, 1999) Jordan, 1986; Pittman, 1998; Reeve, Cole & Olson, 1986; Weiner & Mander, 1978).

Bower (1994) stated that behavioral and cognitive researchers are divided on issue of whether external rewards affect motivation and creativity.

Behavioral researchers argue that external rewards, such as cash incentives, can increase performance at work and school; cognitive researchers contend the opposite, noting that extrinsic rewards lead to a dependence on acceptance, reinforcement and approval from others (Bower, 1994, p. 405).

The divergent views held about intrinsic and extrinsic motivation (Kohn, 1996; Lepper, 1981; Nelson, 1996; Reid, Bailey-Dempsey, Cain, Cook & Burchard, 1994; Schaps & Lewis, 1991) led Cameron and Pierce (1994) to examine the effects of reinforcement/rewards on intrinsic motivation. The main meta-analysis included 96 experimental studies using between-groups designs: in which rewarded subjects were compared with nonrewarded controls on four measures of intrinsic motivation. The researchers found that rewards such as verbal praise do not decrease intrinsic motivation,

but that expectations for automatic tangible rewards for completing a task do. The researchers concluded that when a reward is removed after the end of a measured task, the removal had a minimal negative effect on intrinsic motivation. Five studies using within-subject designs were also conducted to evaluate the effects of the reinforcement on intrinsic motivation. The results of this second analysis revealed that reinforcement does not derail individuals' intrinsic motivation. Although the conclusions drawn by Cameron and Pierce's meta-analysis proved controversial and were the subject of much debate (Cameron & Pierce, 1996; Lepper, Keavney & Drake, 1996; Ryan & Deci, 1996), the investigation did provide evidence that intrinsic motivation is not negatively effected by external rewards.

The researchers also considered the theoretical and practical implications of the meta-analysis. The results of the meta-analysis examination suggested the need to change the current ideas about the ways in which motivation can be used. In other words, we need to abandon old notions about the negative effects of external reward reinforcements and adopt new views that embrace the idea that intrinsic and extrinsic motivational factors can work together. The meta-analysis also hinted that intrinsic interest is enhanced and stimulated by such reinforcements as, verbal praise and positive feedback. Further, if

rewards are used as reinforcements/incentives and are contingent upon performance, such extrinsic incentive systems can be implemented effectively in the classroom despite teacher reservations.

## INCENTIVES

The use of incentives in public schools has grown in favor as a way to increase student achievement, intrinsic motivation, self-worth and retention rates (Chance, 1993; Covington, 1984; Haslinger, Kelly & O'Lare, 1996; Kusky, 1994; Lubell, 1991; Martin, 1991; Purvis, Garvey & Purvis;19 Shroder, 1994). Incentives are defined as ". . . something that incites or is likely to incite determination or action (Marriam Webster Dictionary, 1994, p. 375). Seone and Smink (1991) reported that many elementary school teachers use incentives as an integral part of their classroom management strategy. Candy, parties, special favors and privileges are some of the most commonly used classroom management incentives. Incentives can also be used successfully in high schools to encourage academic achievement. Such things as monetary rewards, special recognition, gift certificates, scholarship competition, extra field trips, and discount tickets are commonly used to promote academic achievement and attendance within high schools (p. 3).

While the use of external rewards to spur intrinsic motivation and productivity in classrooms is well

documented in the literature (Bates, 1979; Bracey, 1994; Roney & Morgan, 1991), educators have become increasing interested using monetary incentives to motivate students to attend school or improve their performance, Reid and Dempsey (1995) stated that ". . . the use of monetary or other tangible incentives to induce children to "be good students . . . probably originated shortly after the first attempt was made to educate a child. . .Within the past decade, various drop-out prevention programs have used the equivalent of financial incentives in the form of . . .college scholarships as means to motivate students to graduate from high school (p.331). Two prominent programs have these monetary incentives ' Lang's I Have A Dream Program and the D-FY-It program in Texas. In the "I Have a Dream Program,in New York, " Lang donated money to schools with the intention of paying for students college educations if they completed high school. His commitment was expensive, but effective; the graduation rate at those schools stood at and in the D-FY-IT (DRUG FREE YOUTH IN TEXAS) program in Dallas, Texas incentives were used to help curb drug abuse in local schools. Students who completed voluntary drug tests received discounts from local businesses, as well as the possibility of financial assistance with college. The program sponsors believed those students drawn by merchandise discounts and help with college, might persuade others to stay away from drugs.

Further, the threat of testing might help students fend off peer pressure to use drugs (Gest, 1996, p. 62). The Say Yes to Education Program, offered the promise of fully paid college tuition for college education or vocational training to 112 sixth grade students from low income families in the School District of Philadelphia. The program's aim was to change . . . the . . . odds that defeat inner-city students (Newburg & Sims, 1996, p. 149).

While the uses of incentives vary, they have one common goal: to motivate, excite and drive people to action. Their success in other areas has prompted educators to ask, "How can incentives be utilized most effectively within the the school setting?"(Seone and Smink, 1991, p. 2)

Early studies of token systems were conducted to ascertain the effectiveness of external incentives or rewards in the classroom setting (Ayllon & Azrin, 1968; Ford & Foster, 1976; Levine & Fasnacht, 1974; Kistner, Hammer, Wolfe, Rothblum & Drabman, 1982).
Kazdin (1977) noted that tokens such as tickets, stars, points on a tally sheet, and currency or coins were used as contingencies to modify, reinforce or change behavior (p. 47). While the research suggested that students were often motivated toward better academic and behavioral performances with the introduction of tokens into the classroom environment (Bedell & Archer, 1980) grades were still the most common motivators in most schools. In fact,

Deutsch, (1979,) described grades as being " . . . the basic currency of our educational system."(p. 393).

Teachers assign grades, and commented on students' quizzes, tests, and major assignments. They also give special recognition or awards to students who do well or improve their performance. Although feedback, evaluation and recognition practices are supposed to motivate students to attain better grades, these measures are largely ineffective, as measured by the number of students who are not performing up to potential (MacIver & Reuman, 1993;1994, p. 24).

Traditional feedback, grading, and recognition practices in schools are based on evaluation systems which compare one student's performance to other students, or to desirable standards of achievement. The implicit goal is for students to attain higher grades, and recognition, such as honor roll membership that accompany such grades (MacIver, 1992, p.8). Academically disadvantaged students at the middle school level who lag significantly behind more advantaged classmates in academic skills may find it impossible to attain this implicit goal even with hard work. Neither will dramatic progress guarantee a successful outcome. Disadvantaged students may still stay near the bottom of their class, far from the absolute levels of performance that are rewarded and recognized in their schools. When students realize that there best

efforts will go unrecognized and un-rewarded, they become frustrated, and disengaged from school (Natriello, 1982). As a consequence, levels of effort and rates of progress drop precipitously. Bishop (1989) and Chance (1993) both suggested adopting the stance that external reinforcers such as; monetary incentives enhance academic achievement and motivation. They argued that external motivators such as incentives assist students in learning the value of supply-side economics. Bishop (1989) noted that ". . . only with an effective system of rewards within the schools . . . can we hope to overcome the pervasive apathy in American high schools and achieve excellence (p.42).

Seone and Smink (1991) conducted an analysis of the different types of incentives offered to students, and grouped them into four categories: Education completion, academic achievement, attendance and personal improvement.

1) Education Completion Incentives - These types of incentives encourage students to complete school in order to pursue higher education or join the work force. The following incentivea are commonly used.
    A) Businesses promise to pay the expenses of college and become involved with students while they are in school.
    B) Schools establish Buddy system
    C) Businesses offer employment for graduating

2) Academic Achievement Incentives - Academic achievement incentives motivate students to improve or maintain academic performance.

   A) Schools award goal cards straight A' performance

      Holders of goal cards receive reduced prices on items from local businesses.

   B) Students earn a certain amount of money for each high grade (this money is placed in a college fund).

3) Attendance Incentives - Incentives aimed at improving attendance are important because excessive absences can adversely affect students' achievement levels, and their motivation to stay in school.

   A) Students earn prizes based on the number of days they are in school. (i.e., food, t-shirts, hats, mugs, etc),

   B) If students miss no more than one day, they can earn T.V sets, cash and walkmans.

4) Personal Improvement Incentives - Personal factors, such as teenage pregnancies and unstable home environments, also impact academic achievement and attendance. Some schools are incorporating improved and extended support services to deal with nonschool related factors affecting students' motivation and performance.

A) Students acquire points when they use the services of local agencies, such as health centers. As the points accumulate, students can win prizes (fast-food gift certificates )

B) Schools provide cash awards or merchandise for attendance and positive behavior.

C) Businesses guarantee of summer employment

## CHARACTERISTICS OF INCENTIVES

In analyzing the incentives presently used to motivate students to complete their education, one notices that certain characteristics must be present to ensure success. Deustch (1979) noted that incentives can be effective if;

1) They establish definite patterns of changes in behavior,
2) They meld with the interests of the students,
3) They can be attained by most students.
4) They have consistent standards of implementation.
5) Students understand what to do to attain
6) Recognition is given only to those receiving awards, and
7) Varying levels and types of incentives are offered for different levels of achievement (p. 393).

Further, in line with the expectancy theory, a student will respond favorably to a reward under the following circumstances:

a. The pupil feels that there is a reasonable chance of success.

b. The pupil is convinced that the personal risks are not overwhelming (presiding in front of a large group, for example, may be numbing).

c. The pupil believes that the product or reward is worth the effort needed to succeed (enormous personal efforts followed by meager rewards have little appeal) (Barnes, 1988, p.12).

The characteristics of incentives suggest that it is important to provide students with avenues for success and recognition. These reinforcers along with verbal reinforcers, such as praise and encouragement will increase opportunities for students to achieve academically.

## CONTROVERSY

Educators do not universally support incentives in academic settings. Many educational theorists believe that the use of extrinsic motivators, in particular, undermines individuals' intrinsic motivation (Bernstein, 1980; Covington, 2000; Deci, Nezlek & Sheinman, 1981; Erez, Gopher & Arzi, 1990; Lepper & Hodell, 1989; Kohn, 1993; Morgan, 1984; Ryan & Deci, 2000).

Lepper and Hodell (1989) argued that when rewards are

given based on task performance, they convey to students clear information about their increasing competence but undermine intrinsic interest (p. 78). Deci (1991) argued that kids become too easily enamored of extrinsic motivators - - money or prizes. He stated that the best results come from within and is its own reward (In Hawkins, 1995 p.73). Conrath (1988) concurred, ". . . it is unforgivably patronizing to lavish external rewards on at-risk kids every time they do something right. Supply-side economics may have led to this in education, but the only way we will successfully raise . . . self-esteem and help kids feel good about themselves is by focusing on the internal reasons for why they do what they do (p. 39)" Holt (1987) agreed that". . . the reward we offer to every person engaged in work is the pride and satisfaction that comes from a job well-done. . . Do we stress to our young people that the opportunity for pride and satisfaction in tasks well earned is available to them? Or do we stress the extrinsic rewards . . .?" (pp. 418-419). However other theorists countered these arguments (Chance, 1993; Morgan, 1997). Chance (1993) concluded that the danger of undermining student motivation might not stem from extrinsic rewards per se, but from the use of inappropriate reward contingencies.

Rewards reduce motivation when given without regard to performance, or when the performance standard is so high that students cannot reach it. When students show a high rate of success that is rewarded, the rewards do not have negative effects. The evidence, clearly shows that extrinsic rewards can go both ways: they can either enhance or reduce interest in an activity, depending on how they are used (p. 43). The three types of rewards he studied follow:

1) Task-contingent rewards - available for merely participating, without regard to any standard of performance. There is usually a decline in interest when activity is rewarded.
2) Performance-contingent rewards - available only when students achieve a certain standard. Sometimes these produce negative results.
3) Success-contingent rewards - are given for good performance and reflect either success in a goal or progress toward one. These rewards do not have negative effects; in fact, they typically increase interest in the rewarded activity.

Shanker (1980) stated that he believed that incentives get people started and that our economic system operates with a variety of incentives. He stated that ". . . most adults go to work regularly and on time because of an elaborate system of incentives that are as external to

their work as cokes and hamburgers are to school attendance" (p.E7).

Finally, Morgan (1997) in a review of Kohn's (1993) book, *"Punished by Rewards: The Trouble with Gold Stars, Incentive Plans and, A's, Praise and other Bribes"* argued that reinforcers are frequently situation and person-specific.

By situation specific, Morgan means that awards or reinforcers are given as a result of an event task. Person-specific, on the other hand, means that awards are given to chosen individuals for events or completed tasks. Therefore, his central point is that intrinsic motivation does not decrease, because reinforcers are not given across the board.

Despite the continued controversy, incentive programs can serve a valuable function in schools. They provide an additional source of motivation and support for students. School personnel, and in particular, school counselors acknowledge that incentive programs provide a means of developing students' academic emotional and social growth. This perspective is deemed crucial in today's ever changing and highly diverse society.

References

Amabile, T.M., Hill, K. G., Hennessey, B.A., & Tighe, E.M. (1995). The work preference inventory: Assessing intrinsic and extrinsic motivational orientations. Journal of Personality and Social Psychology, 66 (50), 950-967.

Ayllon, T., & Azrin, N. (1968). The token economy: A motivational system for therapy and rehabilitation. New York: Appleton-Century Crofts.

Barnes, D.L. (1988). The use of incentives and rewards in elementary classrooms. The Teacher Educator, 23, 11-16.

Bishop, J.H. (1989). Motivating students to study: Expectation, rewards, achievement. NASSP Bulletin, 123, 27-38.

Bower, B. (1994). Rewards surface as creativity enhancers. Science News, 145 (26), 405.

Bracey, G. (1994). Reward and punishment. Phi Delta Kappan, 75 (6), 494-495.

Brennan, T.P., & Glover, J.A. (1980). An examination of the effects of extrinsic reinforcers on intrinsically motivated behavior: experimental and theoretical. Social Behavior and Personality, 8, 27-32.

Brophy, J. (1987). Synthesis of research on strategies for motivating students to learn. Educational Leadership, 45(2), 40-48.

Calder, B, & Staw, B. (1975). Self-perception of intrinsic and extrinsic motivation. Journal of Personality and Social Psychology, 31, 599-605.

Cameron, J., & Pierce, W.D. (1994). Reinforcement, reward, and intrinsic motivation: A meta-analysis. Review of Educational Research, 64, 363-423.

Chance, P. (1993). The hidden treasures of extrinsic rewards. Education Digest, 58 (9), 42-46.

Covington, M. (1984). The self-worth theory of achievement motivation: Findings and implications. The Elementary School Journal, 85 (1), 5-20.

Covington, M V. (2000). Intrinsic versus extrinsic motivation in schools: A reconciliation. Current Directions in Psychological Science, 9(1), 22-25.

Deutsch, M. (1979). Education and distributive justice. American Psychologist, 34, 393.

Erez, M., Gopher, D., & Arzi, N. (1990). Effects of goal difficulty, self-set goals, and monetary rewards on dual task performance. Organizational Behavior and Human Decision Processes, 47, 247-269.

Ford, J., & Foster, S.L. (1976). Extrinsic incentives and token-based programs. American Psychologist, 31, 87-90.

Hawkins, D. (1995). Johnny can read for cash and freebies. U.S. News & World Report, 119 (17), 73.

Hodgkinson, H. (1985). All one system: Demographics of education, kindergarten through graduate school. Washington, D.C.: Institute for Educational Leadership.

Holt, M. (1987). Excellence is intrinsic. The Clearing House, 60 (9), 418-419.

Husman,J., & Lens, W. (1999). The role of the future in student motivation. Educational Psychologist. 34(2), 113-125.

Kazdin, A.E. (1977). The token economy. New York: Plenum Press.

Kohn, A. (1993). Punished by rewards. Boston: Houghton Miflin.

Kohn, A. (1996). By all available means: Cameron and Pierce's defense of extrinsic motivators. Review of Educational Research, 66, 1-4.

Knell, S. E. (1999). Assessing a second-grade student's motivation to read: Examining extrinsic and intrinsic motivators, teacher, parents, and student attitudes, the classroom environment, and the role of technology in reading motivation. Dissertation Abstracts International, 60(6-A).

Kusky,Jr., C.S. (1994). Catch them doing something good. Phi Delta Kappan, 75 (6), 502.

Lepper, M. R., & Hodell, M. (1989). Intrinsic motivation in the classroom. In C. Ames and R. Ames (Eds.), Research on motivation and education, Goals and Cognitions. San Diego, CA: Academic.

Lepper, M.R., Keavney, M., & Drake, M. (1996). Intrinsic motivation and extrinsic rewards: A commentary on Cameron's and Pierce's meta-analysis. Review of Educational Research, 66(1), 5-32.

Martin, L. (1991). Improving student attendance with recognition, rewards. NASSP Bulletin, 75 , 111-112.

MacIver, D.J., & Reuman, D. (1993/1994). Giving their best. American Educator, 24-31.

Martin, L. (1991). Improving student attendance with recognition, rewards. NASSP Bulletin,,111-112.

Morgan, D.L. (1997). Rewards and punishments, ends and means. Journal of Teacher Education, 48 (2), 150-154.

Morgan, M. (1984). Reward-induced decrements and increments in intrinsic motivation. Review of Educational Research, 54 (1), 5-30.

Natriello, G. (1982). Organizational evaluation systems and student disengagement in secondary schools. Final report to the National Institute of Education. St. Louis, MO: Washington University.

Nelson, B. (1996). Dump the cash, load on the praise. Personnel Journal, 75 (7), 65-70.

Newburg, N. A., & Sims, R. (1996). Context that promotes success for inner city students. Urban Education, 31 (2), 149-176.

Pittman, T.S. (1998). Motivation. In Gilbert, D. T., & Fiske, S.T. (Eds). The handbook of social psychology, Vol. 1 (4th ed.). (pp. 549-590). Boston, MA, US: Mcgraw-Hill. xx, 865 pp.

Reid, W.J., & Bailey-Dempsey, (1995). The effects of monetary incentives on school performance. The Journal of Contemporary Human Services, 76 (6), 331-340.

Ryan, M., & Deci, E. L. (2000). Intrinsic and extrinsic motivations: Classic definitions and new directions. Contemporary Educational Psychology. 25(1), 54-67.

Ryan, R.M. & Deci, E.L. (1996). When paradigms clash: Comments on Cameron and Pierce's claim that rewards do not undermine intrinsic motivation. Review of Educational Research, 66, 33-38.

Schaps. E., & Lewis, C. (1991). Educational Leadership, 48(7), 81-83.

Seone, M., & Smink, J. (1991). Incentives and education: A series of solution and Strategies . Number 4, National Dropout Prevention Center: Clemson.

Shanker, A. (1990, April 8). Incentives for attendance. The New York Times, p. E7

Weintraub, A. (1994, August 1). Newmaker Q & A: New Taft principal aims to improve attendance. The Cincinnati Enquirer, p. A6.

Weirsma, U. (1992). The effects of extrinsic rewards on intrinsic motivation: A meta-analysis. Journal of Occupational and Organizational Psychology,65, 101-114.

Wirth, A. G. ( 1993). Education and work: The choices we face. Phi Delta Kappan, 74 (5), 361-366.